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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,009	11/14/2008	Philip Owen	SP62H02/P-WO/US (589-16)	6487
38790	7590	10/17/2011	EXAMINER	
THE SMALL PATENT LAW GROUP LLP 225 S. MERAMEC, STE. 725T ST. LOUIS, MO 63105			POLITO, NICHOLAS F	
			ART UNIT	PAPER NUMBER
			3673	
			NOTIFICATION DATE	DELIVERY MODE
			10/17/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docket@splglaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/593,009	OWEN, PHILIP	
	Examiner	Art Unit	
	NICHOLAS POLITO	3673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/26/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-16 and 18-22 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-16 and 18-22 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-943) | Paper No.(s)/Mail Date: ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 7-9, 13-16, 19, 20 and 22 are rejected under 35 U.S.C. 102(a) or (e) as being anticipated by O'Reagan (U.S. Patent No. 7,100,229).

3. Regarding claim 1, O'Reagan teaches in Figures 1 and 4 a mattress (20), comprising: a resilient body having at least one upper surface portion (30) for supporting a person; and a plurality of shallow surface channels (55, 60) disposed in the at least one upper surface portion and extending parallel thereto; wherein said at least one upper surface portion is upwardly inclined, and wherein along at least a part of the length of said surface channels in the inclined upper surface portion, a direction of elongation of said surface channels is inclined relative to the horizontal.

4. Regarding claim 2, O'Reagan teaches in Figure 4 the mattress of claim 1, wherein the body has an axis of elongation corresponding to the head-to-toe direction of the person lying, in use, on the mattress, and at least one upper surface portion is inclined relative to the axis of elongation.

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5. Regarding claim 3, O'Reagan teaches in Figure 1 the mattress of claim 2, wherein at least some of the surface channels (55) have a component of direction, along at least a portion thereof, parallel to the direction of rising incline of the respective surface portion.

6. Regarding claim 4, O'Reagan teaches in Figure 1 the mattress of claim 2, wherein at least some of the surface channels (55) have a component of direction, along at least a portion thereof, parallel to the axis of elongation.

7. Regarding claim 7, O'Reagan teaches in Figure 1 the mattress of claim 1, wherein the body comprises sidewalls adjacent said at least one surface portion, the mattress further including at least one connecting channel (55, 60), the at least one connecting channel being in communication with a plurality of said surface channels and with at least one sidewall.

8. Regarding claim 8, O'Reagan teaches in Figure 1 the mattress of claim 7, wherein the at least one connecting channel is disposed in the at least one upper surface portion.

9. Regarding claim 9, O'Reagan teaches in Figure 1 the mattress of claim 7, wherein the at least one connecting channel includes a connecting channel extending centrally parallel to said axis of elongation, and/or includes a connecting channel extending substantially transverse to said axis of elongation.

10. Regarding claim 13, O'Reagan teaches in Figure 1 the mattress of claim 1, wherein said at least one upper surface portion includes a body surface portion for

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supporting, in use, the body of a person, a head surface portion for supporting, in use, the head of a person, and/or a top surface portion.

11. Regarding claim 14, O'Reagan teaches in Figure 1 the mattress of claim 7, wherein the connecting channel extending substantially transverse to said axis of elongation extends along the lowermost region of said head surface portion.

12. Regarding claim 15, O'Reagan teaches in Figure 1 the mattress of claim 1, wherein, for one or more of the surface portions, said surface channels are provided over substantially the entire surface area thereof.

13. Regarding claim 16, O'Reagan teaches in Figure 1 the mattress of claim 1, wherein said surface channels are distributed over substantially the entire surface area of said surface portions.

14. Regarding claim 19, O'Reagan teaches in Figure 1 the mattress of claim 1, further comprising a support supporting the mattress, the support including a substantially flat base surface and said body having an upward incline along a centerline from a foot portion to a head portion.

15. Regarding claim 20, O'Reagan teaches in Figure 3 the mattress of claim 1, wherein said at least one upper surface portion for supporting a person is configured in the form of a seat.

16. Regarding claim 22, O'Reagan teaches in Figure 1 the mattress of claim 1, the mattress further including at least one connecting channel (55, 60), the at least one connecting channel being in communication with a plurality of said shallow surface

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channels and together are configured to enable an inflow of cool air and an outflow of warm air.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Kienlein (US Patent No. 6,704,961).

19. Regarding claim 5, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein at least some of the surface channels extend substantially diagonally so as to make an angle of less than 90° with the axis of elongation. Kienlein teaches in Figure 10 wherein at least some of the surface channels (19) extend substantially diagonally so as to make an angle of less than 90° with the axis of elongation. In view of Kienlein, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the diagonal channels of Kienlein with the mattress of O'Reagan to improve tensile relief (Kienlein; col. 2, lines 15-27).

20. Regarding claim 21, O'Reagan teaches in Figures 1 and 4 the mattress of claim 1, wherein said at least one upper surface portion comprises a plurality of sections. O'Reagan does not teach at least two of the sections having different patterns of the surface channels. Kienlein teaches in Figure 10 a mattress (1) wherein at least one upper surface portion comprises a plurality of sections (5, 6) having different patterns of

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the surface channels (19). In view of Kienlein, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the differing channel patterns of Kienlein with the mattress of O'Reagan to effectively support different sections of the human anatomy.

21. Claims 6, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Boselli (U.S. Patent No. 4,796,316).

22. Regarding claim 6, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein at least some of the surface channels have a non-linear path, when viewed from above. Boselli teaches in Figure 1 a mattress comprising surface channels (10, 20, etc.) that have a non-linear path, when viewed from above. In view of Boselli, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the non-linear channels of Boselli with the mattress of O'Reagan to create turbulence which promotes the flow of air (col. 1, lines 42-48).

23. Regarding claim 12, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein said surface channels have a transverse cross-sectional area that varies along the length of the channel. Boselli teaches in Figure 1 a mattress comprising surface channels (10, 20, etc.) that have a transverse cross-sectional area that varies along the length of the channel. In view of Boselli, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the varying channels of Boselli with the mattress of O'Reagan to create turbulence which promotes the flow of air (col. 1, lines 42-48).

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24. Regarding claim 18, O'Reagan teaches the mattress of claim 1, wherein the resilient body comprises sidewalls. O'Reagan does not teach wherein said surface channels have a transverse cross-sectional area that increases in size with proximity to the sidewalls. Boselli teaches in Figure 1 a mattress comprising surface channels (10, 20, etc.) having a transverse cross-sectional area that increases in size (11, 12, 21, 22, etc.) with proximity to the sidewalls. In view of Boselli, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the increasing channels of Boselli with the mattress of O'Reagan to increase the size and thus airflow of the channels at the ends.

25. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Reagan in view of Neal (US Patent No. 4,967,433).

26. Regarding claims 10 and 11, O'Reagan teaches the mattress of claim 1. O'Reagan does not teach wherein said surface channels have a transverse dimension at the surface of about 4 to 15 mm and said surface channels are spaced apart at the surface by about 5 to 20 mm. Neal teaches in column 3, line 54 to column 4, line 34 wherein surface channels have a transverse dimension at the surface of about .75" to 1.5" and said surface channels are spaced apart at the surface by about 1.5" to 2.5". Furthermore, Neal teaches providing a peak height to peak-to-peak spacing ratio of between 1.5 to 1.8 to provide mutual support between adjacent ridges against collapse. Neal teaches varying the channel dimensions and spacing, suggesting to one of ordinary skill in the art that a wide range of values are possible and that optimization is necessary based on the specific conditions under which the product is used. Therefore,

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it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide surface channels with a transverse dimension at the surface of about 4 to 15 mm and spaced them apart at the surface by about 5 to 20 mm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

27. Applicant's arguments filed 4/26/2010 have been fully considered but they are not persuasive.

28. In response to applicant's argument that O'Reagan does not teach surface channels which extend in the direction of elongation, O'Reagan teaches in Figures 1 and 8 surface channels (55) which extend in the direction of elongation. Furthermore, Merriam-Webster defines the plain meaning of channel as a long gutter, groove or furrow. Therefore, the cuts (55) of O'Reagan are channels.

29. In response to applicant's arguments that O'Reagan does not teach a body having an upward incline along a centerline from a foot portion to a head portion, O'Reagan teaches in Figure 4 a body having an upward incline along a centerline from a foot portion (85) to a head portion (70). The body of O'Reagan trends in a generally inclined fashion from the foot portion to the head portion. Furthermore, Applicant teaches in Figures 2(a) and 2(b) of the current application at least one section having a downward decline.

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30. In response to applicant's argument that O'Reagan does not teach at least one upper surface portion for supporting a person configured in the form of a seat, the mattress of O'Reagan is capable of being used as a seat therefore it is configured in the form of a seat.

31. In response to applicant's argument that O'Reagan does not teach enabling an inflow of cool air and an outflow of warm air, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS POLITO whose telephone number is (571)270-5923. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pete Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas Polito/
Examiner, Art Unit 3673

/ROBERT G. SANTOS/
Primary Examiner, Art Unit 3673

9/30/2011